

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A method of converting non-hypoxic cells into hypoxic cells, comprising:

- a) impeding oxygen supply to non-hypoxic cells in a subject in need thereof by using a magnetic fluid.

Claim 2 (original): The method of Claim 1, wherein:

the step a) comprises blocking a blood vessel feeding to the non-hypoxic cells.

Claim 3 (original): The method of Claim 2, wherein:

the step a) comprises delivering a magnetic fluid adjacent the non-hypoxic cells and applying a magnetic field to join a plurality of particles in the magnetic fluid to form a blockage in the blood vessel thereby impeding the flow of oxygen to the non-hypoxic cells.

Claim 4 (original): The method of Claim 3, wherein:

the magnetic fluid is delivered through a catheter or by injection.

Claim 5 (original): The method of Claim 3, wherein:

the magnetic field is applied by an internal micromagnet, an external rare earth magnet, or an external electromagnet.

Claim 6 (currently amended): The method of Claim 3, wherein:

the magnetic fluid comprises coated core particles of a magnetic material.

Claim 7 (cancelled).

Claim 8 (original): The method of Claim 6, wherein:

the core particles have an average diameter of about 1 nm to 20 μm .

Claim 9 (cancelled).

Claim 10 (currently amended): The method of Claim [[9]] 8, wherein:

the core particles have an average diameter of about 10 nm to 1,000 nm.

Claim 11 (original): The method of Claim 6, wherein:

the magnetic material is selected from the group consisting of iron, iron oxide, cobalt, cobalt oxide, nickel, nickel oxide, an alloy, and a combination thereof.

Claim 12 (currently amended): The method of Claim 6, wherein:

the core particles comprise a coating of a surfactant selected from the group consisting of polyethylene oxide, dextran, a Pluronic[®] surfactant, and a combination thereof.

Claim 13 (cancelled).

Claim 14 (original): The method of Claim 6, wherein:

the core particles comprise a coating selected from the group consisting of a ceramic material, a metallic material, a polymer material, and a combination thereof.

Claim 15 (original): The method of Claim 14, wherein:

the coating is selected from the group consisting of silica, gold, silver, platinum, steel, cobalt, carbon, polyethylene glycol, dextran, Tween[®], sorbitol, mannitol, and a combination thereof.

Claim 16 (original): The method of Claim 6, wherein:

the core particles comprise first and second successive coatings.

Claim 17 (original): The method of Claim 16, wherein:

the first coating comprises a coating of a surfactant; and
the second coating comprises a coating of a material selected from the group consisting of a ceramic material, a metallic material, a polymer material, and a combination thereof.

Claim 18 (original): The method of Claim 17, wherein:

the surfactant is selected from the group consisting of polyethylene oxide, dextran, a Pluronic[®] surfactant, and a combination thereof.

Claim 19 (original): The method of Claim 18, wherein:

the second coating is selected from the group consisting of silica, gold, silver, platinum, steel, cobalt, carbon, polyethylene glycol, dextran, Tween[®], sorbitol, mannitol, and a combination thereof.

Claim 20 (original): The method of Claim 8, wherein:

the core particles are dispersed in a carrier fluid.

Claim 21 (original): The method of Claim 20, wherein:

the carrier fluid comprises a water-based carrier fluid.

Claim 22 (original): The method of Claim 20, wherein:

the carrier fluid is selected from the group consisting of water, Ringer's solution, normal saline, sugar solution, blood plasma, and a combination thereof.

Claim 23 (original): The method of Claim 20, wherein:

the fraction of the core particles is about 1-90%.

Claim 24 (original): The method of Claim 8, wherein:

the core particles comprise a general shape selected from the group consisting of spherical, needle-like, cubic, irregular, cylindrical, diamond, oval, and a combination thereof.

Claim 25 (original): A method of inducing hypoxia in a non-hypoxic region of a tumor, comprising the steps of:

- a) administering a magnetic fluid in a subject in need thereof through a blood vessel feeding a tumor; and
- b) applying a magnetic field adjacent the tumor to join a plurality of particles in the magnetic fluid to form a blockage in the blood vessel thereby impeding the flow of blood to the tumor.

Claims 26-46 (cancelled).

Claim 47 (original): A method of treating a tumor, comprising the steps of:

- a) administering a magnetic fluid in a subject in need thereof through a blood vessel feeding a tumor;
- b) applying a magnetic field adjacent the tumor to join a plurality of particles in the magnetic fluid to form a blockage in the blood vessel thereby impeding the flow of blood to the tumor;

and

- c) continuing with step b) for a sufficient time to induce hypoxia in a non-hypoxic region of the tumor.

Claim 48 (original): The method of Claim 47, further comprising the step of:

- d) administering a hypoxic drug prior to or after step a), or substantially simultaneously therewith.

Claim 49 (original): The method of Claim 48, wherein:

the hypoxic drug is selected from the group consisting of AQ4N, mitomycin C, porfiromycin, and tirapazamine.

Claims 50-91 (cancelled).